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ABSTRACT

This library handbook is a guide for the engineering student. It lists some of the more useful materials and reference books basic to general research and gives their location in the Fogler Library at the University of Maine. Materials are listed in three categories: (1) general reference works--dictionaries, encyclopedias, and handbooks; (2) engineering fields--chemical, civil, electrical, and mechanical engineering; and (3) abstracts and indexes. Some items are annotated. (Author/AWP)

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How to find out

in: ENGINEERING

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ENGINEERING

COVER: The symbol on the cover is the badge of the engineering honor society, Tau Beta Pi

Compiled by the Reference Department:
Jean Campana

1976
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THE CARD CATALOG

A note on using the card catalog:

To simplify use of the card catalog when looking for a particular subject use:

Library of Congress. Subject Headings

Lists correct subject headings and gives alternatives or related headings. Extremely valuable tool. Eliminates searching in too broad or dead-end areas. (Located at the Card Catalog or Reference Desks)

LIBRARY OF CONGRESS CLASSIFICATION SYSTEM

QA	Mathematics
QC	Physics
QD	Chemistry
TA	Engineering (general)
TA	Civil Engineering
TC	Hydraulic Engineering
TD	Sanitary and Municipal Engineering
TE	Roads and Pavements
TF	Railroad Engineering
TG	Bridge and Roof Engineering
TJ	Mechanical Engineering
TK	Electrical and Electronic Engineering
TL	Motor Vehicles
TN	Mining Engineering
TP	Chemical Technology
Z	Bibliography

DEWEY CLASSIFICATION SYSTEM

510	Mathematics
530	Physics
540	Chemistry
600	Technology
620	Engineering and Allied Sciences
622	Mining Engineering and Operations
624	Civil Engineering
625	Railroads and Highway
627	Hydraulic Engineering
628	Sanitary and Municipal Engineering

This library guide is an informal handbook for the Engineering student. It lists some of the more useful materials and reference works basic to general research and gives their locations in the Fogler Library.

GENERAL REFERENCE

DIRECTORIES

Ref
T
12
T6

Thomas' register of American manufacturers. New York, Thomas Publ. Co. Annual, Multivolume set.
Contains product classifications, list of leading manufacturers, trade names.

Ref
T
176
N35

Industrial research laboratories of the United States. New York, R.R. Bowker Co., 1975.
Brief descriptions of non-governmental research laboratories. Includes geographic, personnel and subject indexes.

Ref
TD
1
M927
1975

Municipal index. Pittsfield, Mass, Buttenhem Publ. Co. Annual.
The purchasing guide for city, township, county officials and consulting engineers.

Ref
TD
12
E54
1975

Environmental protection directory: a comprehensive guide to environmental organizations in the United States and Canada. Chicago, Marquis Academic Media.

Ref
TP
12
C44

Chem sources - U.S.A. New York, Directories Publ. Co., 1976.
Source guide to products of U.S. chemical industry. Lists common chemicals and rare, commercially available chemicals not advertised elsewhere.

DIRECTORIES (Cont'd.)

Ref
TS
1088
L82

Lockwood's directory of paper and allied trades. New York, Bulkley Dunton Pulp Co., Inc., 1975.
Gives information on Canadian pulp and paper manufacturers as well as those in U.S.

ENCYCLOPEDIAS

Ref
Q
121
1971

McGraw-Hill encyclopedia of science and technology. New York, McGraw-Hill, 1971+
Comprehensive coverage of the physical, natural and applied sciences. Includes bibliographies.

Ref
QC
5
E52

Encyclopaedic dictionary of physics. New York, Pergamon Pr., 1961+
Covers all areas of physics and related subjects.

Ref
QD
131
E5

Encyclopedia of industrial chemical analysis. New York, Wiley-Interscience, 1966+
Methods and techniques in laboratory control and testing in chemical analysis.

Ref
TP
9
E685

Kirk-Othmer encyclopedia of chemical technology. New York, Wiley-Interscience, 1963-1972.
Deals with chemical substances and chemical processes. Also includes material on general topics such as chemical literature, computers and patents.

Ref
TP
156
P6E5

Encyclopedia of polymer science and technology; plastics, resins, rubbers, fibers. New York, Wiley-Interscience, 1964+
A companion encyclopedia to the title above. More specialized with emphasis on polymers.

HANDBOOKS

Ref
PE
1475
T67

Trelease, Sam. How to write scientific and technical papers. Baltimore, Williams and Wilkins, 1958.
Easy to follow directions on writing up data.

Ref
QA
47
B8

Burrington, Richard S. Handbook of mathematical tables and formulas. New York, McGraw-Hill, 1973.
A basic handbook for the fields of mathematics, engineering, physics and chemistry.

Ref
QD
65
H3

Handbook of chemistry and physics. Cleveland, CRC Pr. Annual,
A ready reference book of chemical and physical data.

Ref
T
55.3
H3
U49

Sax, Newton Irving. Dangerous properties of industrial materials. New York, Van Nostrand Reinhold Co., 1975.
Hazard analysis information about common industrial and laboratory materials and counter measures to mitigate the effect of using a given material.

Ref
TA
11
A7

Arnell, Alvin. Standard graphical symbols: a comprehensive guide for industry, engineering and science. New York, McGraw-Hill, 1963.
All symbols reproduced are taken directly from standards published by a specific technical or engineering society.

Ref
TA
151
C2
1973

CRC handbook of tables for applied engineering science. Cleveland, CRC Pr., 1973.
Covers applied chemistry, nuclear engineering, thermodynamics and many other topics.

HANDBOOKS (Cont'd.)

Ref
TS
156
Q3
J8

Juran, Joseph M. Quality control handbook. New York, McGraw-Hill, 1974.
How to attain and maintain quality in an industry, a product or a process.

STANDARDS

Ref
TA
401
A653

American Society for Testing and Materials. Book, A.S.T.M. standards. Philadelphia. Annual.
Multivolume set that contains current, formally approved ASTM standards, methods of testing, definitions and other related materials.

Ref
TH
151
T55
1974

Callender, John Hancock, ed. Time-saver standards for architectural design. New York, McGraw-Hill, 1974.
Intended primarily to meet the needs of those who design buildings. May also be used for construction and maintenance.

Ref
TH
7011
A43

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. ASHRAE standards. New York.
Updated and revised.

Ref
TK
152
U53

Underwriters Laboratories. Standards for safety. Chicago.
Continually revised and updated standards for fire protection.

Ref
TS
1080
T352

Technical Association of the Pulp and Paper Industry. (TAPPI) Standards and suggested methods. New York.
Periodically updated standards and provisional methods that have received recognition by this society.

CHEMICAL ENGINEERING

Ref
TP
9
C49

Considine, Douglas M. Chemical and process technology encyclopedia. New York, McGraw-Hill, 1974.
One volume reference work. Material on organic, inorganic and physical chemistry and on chemical, metallurgical and process engineering.

Ref
TP
9
E38

Elsevier's dictionary of chemical engineering. Amsterdam, New York, 1968.
In six languages. English/American-French-Spanish-Italian-Dutch-German.

Ref
TP
9
G28
1971b

Gardner, William, ed. Chemical synonyms and trade names: a dictionary and commercial handbook. 7th ed. Cleveland, CRC Pr.

Ref
TP
151
C52
1973

Perry and Chilton, eds. Chemical engineer's handbook. 5th ed. New York, McGraw-Hill.
Basic handbook for chemical engineering students.

Ref
TP
200
F3

Faith, William L. Industrial chemicals. New York, John Wiley and Sons, 1965.
A book of processes for industrial chemicals with listings of manufacturers and plant sites.

Ref
TP
986
A1M62

Modern plastics encyclopedia and engineer's handbook. New York, Plastics Catalogue Corp. Annual.
Includes data about materials and processes, specification data on materials and equipment, and directory of suppliers.

CIVIL ENGINEERING

Ref
TA
9
H3
1965

Hammond, Rolt. Dictionary of civil engineering. New York, Philosophical Library, 1965.

Ref
TA
151
S8

Merritt, Frederick S., ed. Standard handbook for civil engineers. New York, McGraw-Hill, 1968.
Basic handbook for civil engineering students.

Ref
TA
403.4
L94

Lynch, Charles T., ed. CRC handbook of materials science. Cleveland, CRC Pr., 1974. 2 vols.
v.1 general properties
v.2 metals composites and refractory materials

Ref
TA
439
L28

La Londe, Jr., William S., ed. Concrete engineering handbook. New York, McGraw-Hill, 1961.
Gives practical information in the field of reinforced concrete. For civil engineers interested in design and construction of buildings and bridges.

Ref
TA
635
G3

Gaylord, Jr., Edwin H., ed. Structural engineering handbook. New York, McGraw-Hill, 1968.
Covers wide range of structures, design in various media, soil mechanics, foundations, etc.

Ref
TC
145
D3

Davis, Calvin V., ed. Handbook of applied hydraulics. New York, McGraw-Hill, 1969.

Ref
TD
145
D3

Liptak, Bela, ed. Environmental engineer's handbook. Radnor, PA., Chilton Book Co., 1974. v.1
First volume of series is on water pollution.

Ref
TD
430
A6

American Water Works Association. Water quality and treatment; a handbook of public water supplies. New York, McGraw-Hill, 1971.

Ref
TE
151
B24

Baker, Robert F., ed. Handbook of highway engineering. New York, Van Nostrand Reinhold, 1975.
A reference book of principles, processes and data for those interested in the application of technology to highway transportation.

Ref
TH
151
M4
1975

Merritt, Frederick S. Building construction handbook. 3d ed. New York, McGraw-Hill, 1975.

ELECTRICAL ENGINEERING

Ref
TK
9

Institute of Electrical and Electronics Engineers. IEEE standard dictionary of electrical and electronics terms. New York. Wiley-Interscience, 1972.

Ref
TK
151
A47
1970

Watt, John H., ed. American electricians' handbook; a reference book for the practical electrical man. New York, McGraw-Hill, 1970.

Ref
TK
151
S83
1968

Fink, Donald C., ed. Standard handbook for electrical engineers. 10th ed. New York, McGraw-Hill, 1968.
Basic handbook for electrical engineering students.

Ref
TK
6552
F4
1968

International Telephone and Telegraph Corp. Reference data for radio engineers. New York, 1968.

Ref
TK
7836
H37

Harper, Charles A., ed. Handbook of materials and processes for electronics. New York, McGraw-Hill, 1970.

Ref
TK
7870
H284

Harper, Charles A., ed. Handbook of electronic packaging. New York, McGraw-Hill, 1969.
Data, guidelines and other facts needed by engineers in the field of electronic packaging. Companion volume to title above.

Ref
TK
7881.4
T7
1969

Tremaine, Howard M. Audio cyclopedia. Indianapolis, H.W. Sams, 1969.
Information on stereo, acoustics, motion picture projection equipment, optical film recording etc. Question and answer format.

MECHANICAL ENGINEERING

Ref
TA
459
A5

American Society for Metals. Metals handbook. Cleveland, OH, 8th ed. 10 vols., 1961+

Each volume in set is devoted to one aspect of metals science.

Ref
TH
7225
A537
1972

American Society of Heating, Refrigerating and Air-Conditioning Engineers. ASHRAE handbook of fundamentals. New York, 1972.

Contains sections on theory, general engineering data, basic materials, load calculations, etc.

Ref
TJ
9
N3

Naylor, Joseph L. Dictionary of mechanical engineering. New York, Hart Publ. Co., 1967.

Ref
TJ
151
M3

Oberg, Erik. Machinery's handbook; a reference book for the mechanical engineer, craftsman, toolmaker, and machinist. New York, Industrial Press Inc., 1975.

Ref
TJ
151
P35
1973

Parrish, A., ed. Mechanical engineer's reference book. London, Butterworths, 1973.

Ref
TJ
151
S82
1967

Marks, L.S. & T. Baumeister, eds. Standard handbook for mechanical engineers. 7th ed., New York, McGraw-Hill, 1967.

Basic handbook for mechanical engineering students.

Ref
TJ
1125
A52
1959

American Soc. of Tool & Manufacturing Engineers. Tool engineers' handbook; a reference book on all phases of planning, control, design, tooling and operations in the manufacturing industries. New York, McGraw-Hill, 1959.

ABSTRACTS AND INDEXES

An index supplies bibliographic citations to articles, books, papers, etc.

An abstract supplies all the information above plus summaries.

All abstracts and indexes listed below are in the Periodicals Reference Area (Per-R) in the Reference Room.

Per-R — Applied mechanics reviews. v.1, 1948+
Reviews of world literature in applied mechanics and related engineering sciences.

Per-R — Applied science and technology index. v.46, 1958+
Indexes journals published in the U.S. and Canada in the fields of automation, chemistry, engineering and many other subjects. Easy to use.

Per-R — Chemical abstracts. v.1, 1907+
Abstracts chemical literature of the world. Includes patent concordance, formula and ring systems indexes.

Per-R — Computer and control abstracts. v.2, 1967+
Published jointly by British and American engineering societies. Most comprehensive work in field.

Per-R — Electrical and electronic abstracts. v.6, 1903+
Also published by British and American engineering societies. Many cross references between this publication and Computer and Control Abstracts.

Per-R Electronics and communications abstracts journal. v.1, 1968+
Covers material in electronic physics, electronic systems and circuits; electronic devices; communications.

Per-R Engineering index. 1884+
Most important reference tool for engineering students. Indexes all important literature in the field of engineering.

Per-R Institute of paper chemistry. Bulletin. v.1, 1930+
Covers periodicals, books and dissertations relating to the paper industry.

Per-R Metals abstracts. v.3, 1970+
Abstracts are grouped under seven main sections representing branches of metals science, engineering and technology.

Per-R Theoretical chemical engineering abstracts. v.7, 1970+
Abstracts on fluid dynamics, heat transfer, kenetics and thermodynamics and other related subjects.

Per-R Transportation research abstracts. v.27-45, 1957-1975. Volumes 27 to 44 #5, 1957-1974 as Highway Research Abstracts.
Covers material on transportation in U.S. and Europe. Does not index Highway Research Record.